REMARKS

Claims 1-13 remain in the application. Applicant notes with appreciation the indication

of allowable subject matter in claim 6, but respectfully requests reconsideration of the

application and allowance of all claims in view of the following remarks.

Claims 1-5, 7 and 8 stand rejected as unpatentable over Kim (USP5,838,829) in view of

Khansari et al (USP 6,141,448). This rejection is respectfully traversed.

Kim was cited and relied on in earlier Office actions, and has been discussed at length.

Kim predicts the motion of a contour, which is a component of the image. Kim is not predicting

the motion of the contour within any particular part of the image, so there are no boundaries or

edges in Kim. This is in contrast to the present invention which predicts motion of an image

component within a block or a macroblock.

The examiner refers to lines 22-28 and 59-62 of Kim in support of his assertion that Kim

divides the picture into a plurality of segments made up of macroblocks. But there is no support

in the cited text for division into segments containing macroblocks. Lines 18-21 define an

extended contour as the current contour pixels plus pixels adjacent to the current contour in x and

y directions. Lines 22-28 then describe the motion estimation as being performed relative to the

previous position of the contour. Lines 36-38 of column 3 describe a "predicted contour" as the

previous contour shifted toward the extended contour. Lines 59-62 of column 3 describe the

extended and predicted contours as overlapping to create a plurality of predicted contour

segments and extended contour segments, but the term "segments" is used here in a manner

entirely different from the present application. With reference to Fig. 2, when the extended

contour 10 is overlapped onto a predicted contour 10, the contour shapes do not match perfectly

and this results in unmatched segments of each contour. The segments 20-CD and 20-AB are

portions of the predicted contour that are not overlapped by the extended contour, and the

segments 10B-CD and 10A-AB are portions of the extended contour that are not overlapped by

the predicted contour. But these are not segments made up of macroblocks, there are no edge

blocks, and there are no motion estimation vectors extending from an edge block of a segment

into an adjacent segment.

To the extent there is a motion vector in Kim, it would be the vector corresponding to the

shift of the previous contour toward the extended contour. But the vector does not "extend into"

any of the contour segments identified in Fig. 2.

Khansari is directed to a video coder wherein a pictures is divided into plural

macroblocks with each macroblock containing a number of blocks. Pictures are divided into

slices comprising one or more continuous macroblocks. Motion vector coding is performed

within each slice, or group of blocks (GOB), without relying on any information from a previous

slice. Figs. 4-7 illustrate motion vectors, and the dotted lines indicate slice boundaries. Lines

34-55 of column 4 describe this and also describe that the dotted lie boundaries "which affect the

motion vectors used to encode the current motion vector MV." The reason that the dotted line

boundaries affect the motion vectors used to encode the current motion vectors is that motion

vectors do not extend across boundaries. There is nothing here about having a motion vector

extend across a boundary between slices. Indeed, as described at lines 52-55 of column 6 point

out that the motion vector data in any slice (GOB) is independent of any other GOBs.

From the above careful review of Khansari, it is seen that Khansari is similar to the prior

art acknowledged in the present application in confining motion analysis to each GOB. Thus,

3

there is nothing in either of the cited references which could have led the ordinarily skilled

artisan to vary from the consistent teaching of the prior art whereby motion vector estimation is

performed only within each slice but the analysis does not cross slice boundaries. Accordingly,

withdrawal of the rejection in paragraph 3 of the Office action is respectfully requested.

The rejection stated in paragraph 4 of the Office action is similarly rejected. The third

reference Hannuksela (USP 6,611,561) does not provide the teaching lacking in the references

discussed above.

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

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Respectfully submitted,

David J. Cushing
Registration No. 28,703

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860
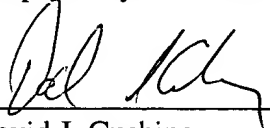
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4